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| 10/078,526 | 02/21/2002 | Henry L. Sterchi | 723-1259 | 3040 |

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| EXAMINER |
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PAPPAS, PETER

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| ART UNIT | PAPER NUMBER |
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2628

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|----------------------------------|--------------------------------|--|
| Office Action Summary | Application No. 10/078,526 | Applicant(s) STERCHI ET AL. | |
| | Examiner Peter-Anthony Pappas | Art Unit 2628 | |

-- *Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --*
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter (...wherein the tag is defined at the location such that the user does not know where in the three-dimensional environment of the three-dimensional game space the tag is located and the user does not know how the tag information and the at least one variable associated with the user-controlled character will affect the animation) which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (p. 4-5, ¶ 7; p. 6-7, ¶ 10; p. 10, ¶ 24).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ventrella et al. (U.S. Patent No. 6, 545, 682), in view of Bickmore et al. (Pub. No. US 2003/0206170 A1).

5. In regards to claim 1 Ventrella et al. teaches a method and apparatus for creating, animating and rendering a user-controlled 3D avatar in a dynamic 3D virtual environment (column 2, lines 63-64; column 7, lines 60-62; column 9, lines 32-45; column 18, lines 24-27; Fig. 9) in real time (column 10, lines 7-11), wherein said avatar interacts with various stimuli (tags), within said virtual environment, when said stimuli occurs close (in proximity) to said avatar (column 19, lines 40-59; column 18, lines 13-34). Ventrella et al. teaches that at least one variable can be associated with said avatar (i.e. the orientation of said avatar) and that said variable can be used to influence a change in said user-controlled avatar (column 14, lines 45-67; column 17, lines 57-67).

Ventrella et al. teaches that avatar genotypes may be designed by, for example, the vendor of the simulation system or a third party vendor, to create a set of default or archetypal avatars. These archetypes may then be customized by the end users or used unmodified by the end users. To create a complex, highly realistic virtual world; however, it is desirable to have very large numbers (potentially thousands or millions) of unique avatars. Creating such an environment can be difficult if so many avatars (or avatar defaults or archetypes) must be created manually. One solution is to use a pseudorandom number generator to automatically assign the individual values for each gene of each avatar, in order to create a large, statistically diverse population of avatars (column 8, lines 32-49).

Ventrella et al. fails to explicitly teach assigning tag information to said tag.
Bickmore et al. teaches defining an object (tag) and assigning avatar reference

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properties (tag information) to said object, wherein said reference properties designate a type of reaction (defined behavior) for an avatar (character) when, for example, it is dragged over (in proximity to) said object (p. 5, ¶ 61-64; p. 6, ¶ 69). It is noted said object is considered external to said avatar. Said avatar can be animated using a scripted animation sequence (i.e. stored in an avatar script file 520), as defined by user input (p. 4, ¶ 50-53). When said avatar is dragged over an object (within predetermined proximity to a tag) the location of said object and said avatar reference properties are used to modify the animation of said avatar at run-time (p. 6, ¶ 69; p. 3, ¶ 42; p. 5, ¶ 66). It is noted that modifying said animation at run-time is considered to result in real-time animation.

Bickmore et al. further teaches that the avatar 114 or 132 is used to allow the document author 110 or the avatar creator 130 to annotate the electronic document 112 with that avatar creator's personal views (p.3 , 38; Fig. 1). In operation, a new avatar context is created and all the required avatar definition and script files are loaded. When the document reader 140 clicks on an avatar link, the first behavior/avatar pair associated with the link is performed. If the document reader 140 drags the avatar 132 over a document object for which the avatar 132 has a defined behavior defined, the avatar 132 performs a DRAG_HANDLE behavior if that behavior has been defined (p. 6, ¶ 69; Fig. 1).

It would have been obvious to one skilled in the art, at the time of the Applicant's invention, to incorporate the assignment of tag information to tags, as taught by Bickmore et al., into the method taught Ventrella et al., because Ventrella et al. teaches

that stimuli can be prioritized using any reasonable criteria (column 19, lines 21-58) and thus by having a priority value directly assigned to a given stimuli, wherein said assignment is calculated in respect to the priority assignments assigned to respective stimuli of the same virtual environment, it would allow for a more realistic interaction between said stimuli and an avatar, as a given stimuli would be able to override (via a set priority value) any other concurrently running stimuli imparting a weight to the significance of a given stimuli.

For example, consider a virtual environment wherein a given avatar is placed within the boundaries of a burning forest. Such a scene would warrant careful consideration of the prioritization of stimuli in said virtual environment so that the stimuli (burning forest) when in close proximity to said avatar would take immediate priority over all other stimuli concurrently running in said virtual environment and ideally behoove said avatar to act accordingly and attempt to escape impending harm, regardless of any other surrounding stimuli and their respective priority settings.

While Ventrella et al. and Bickmore et al. each teach that separate entities (i.e. third party vendor, end user, document author, avatar creator, document reader) are involved in both the use and creation of said avatars said references fail to explicitly teach that the user does not know where the tag is located and the user does not know how the tag information and the at least one variable associated with the user-controlled character will affect the animation. Official Notice is taken that both the concept and the advantages of having said avatars setup by different people than those people who are to use said avatars, thus resulting in said user not having a hand in the setup of said

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avatars, are well known and expect in the art. Thus, it would have been obvious to one skilled in the art, at the time of the Applicant's invention, that either said end user or said document reader would not be the creators of said avatar, as is supported by the teachings of both references, because it is convention in the art, especially in the field of video games, to have, for example, game designers or the like create characters for end users to use in a virtual environment, wherein said users are generally unable to modify the influence of surrounding stimuli on said avatars (i.e. said users would not know of the presence of a given tag or how the tag will affect the animation) simply because it would conflict with the scripting of many conventional games and would render said games non-functional.

6. In regards to claim 2 Ventrella et al. fails to explicitly teach detecting when the characters is no longer within the predetermined proximity to the tag and upon such detection, retuning to the scripted animation for the character. Bickmore et al. teaches detecting when said avatar is no longer over an object (DRAG_NOHANDLE is enabled) and upon such detection returns to the scripted animation (i.e. idle behavior, etc.) for the character (p. 5, ¶ 59; p. 6, ¶ 69).

7. In regards to claim 3 Ventrella et al. teaches that the blending of animation scripts, at each frame of the output script, can be accomplished by computing a feature as a weighted function of said feature in the corresponding frames of each of the input scripts (column 10, lines 11-21). It is noted that the process disclosed above is considered key framing and that in computer implementations of keyframing the

process known as tweening, inbetweening and/or in-betweening is considered a component thereof.

Ventrella et al. teaches that skeletal bone rotations are determined by various sources and then modified, if appropriate, by the Inverse Kinematics (IK) module in the animation system (column 11, lines 6-9).

8. In regards to claim 4 Ventrella et al. teaches defining human-like reaction (based on personality traits) as the type of reaction and generating an animation that corresponds to said human-like reaction (column 5, lines 61-64; column 3, lines 23-25; columns 17-18, lines 32-67 and 1-34, respectively).

9. In regards to claim 5 Ventrella et al. teaches that the head of the avatar may be turned, for example, in response to a control input from the user or in response to some other stimuli that is independent of the user (column 18, lines 13-34). It is noted said animation is considered to be executed in real-time.

10. In regards to claim 6 Ventrella et al. teaches a plurality of tags at different locations in a virtual world (column 19, lines 21-34). Ventrella et al. fails to explicitly teach assigning tag information to each tag, wherein each tag causes a different dynamic animation sequence to be generated for the character when within a predetermined proximity thereto. The rationale disclosed in the rejection of claim 1 is incorporated herein (Bickmore et al.: p. 6, ¶ 69).

11. In regards to claim 7 the rationale disclosed in the rejection of claims 2 and 6 are incorporated herein. Ventrella et al. teaches the curiosity gene determines the tendency of the avatar to look, automatically toward a low-priority stimulus in the absence of a

high-priority stimulus (column 19, lines 20-34). Ventrella et al. fails to explicitly teach assigning a priority value to each tag. The rationale disclosed in the rejection of claim 1 is incorporated herein.

12. In regards to claim 8 the rationale provided in the rejection of claim 2 is incorporated herein.

13. In regards to claim 9 the rationale provided in the rejection of claim 3 is incorporated herein.

14. In regards to claim 10 the rationale provided in the rejection of claim 4 is incorporated herein.

15. In regards to claim 11 the rationale provided in the rejection of claim 5 is incorporated herein.

16. In regards to claim 12 the rationale disclosed in the rejection of claim 1 is incorporated herein.

17. In regards to claim 13 the rationale disclosed in the rejection of claim 7 is incorporated herein.

18. In regards to claim 14 the rationale provided in the rejection of claim 3 is incorporated herein.

19. In regards to claim 15 the rationale provided in the rejection of claim 4 is incorporated herein.

20. In regards to claim 16 the rationale provided in the rejection of claim 5 is incorporated herein.

Response to Amendment

21. In response to Applicant's remarks that the limitations rejected under 35 U.S.C. 112 1st paragraph are inherent in the invention, because, for example, it is custom for users and creators of virtual environments of video games to be separate parties the Office disagrees. It is not inherent that said users and creators are always separate parties. It is the position of the Office that said users and creators can be separate parties, which means said users and creators can also not be separate parties.

22. In response to Applicant's remarks that the user knows exactly the type of avatar he is getting and thus, at least to some extent, how the avatar will behave when they come into contact with tagged object the Office agree that in some situations the user would know, at least to some degree, how said avatar might react.

The Office does not agree, however, that the user always knows what type of avatar he is getting nor that the user would know for certainty how said avatar would react. The Office points out that Ventrella et al. teaches that these archetypes may (not always) then be customized by the end users or used unmodified by the end users. To create a complex, highly realistic virtual world; however, it is desirable to have very large numbers (potentially thousands or millions) of unique avatars. Creating such an environment can be difficult if so many avatars (or avatar defaults or archetypes) must be created manually. One solution is to use a pseudorandom number generator to automatically assign the individual values for each gene of each avatar, in order to create a large, statistically diverse population of avatars (column 8, lines 32-49). Avatars created in such a manner, with pseudorandom values, are considered avatars which can be controlled by a given user.

23. In response to Applicant's remarks that using a pseudorandom number generator to create user-controlled avatars results in the user knowing what he is getting the Office notes that while the user might be privy to the values assigned to said avatar pseudorandomly said values do not necessarily indicated, with certainty, how the avatar will perform when placed in proximity to tagged objects.

24. In response to Applicant's remarks that there is no teaching or suggestion in Ventrella et al. of at least one variable associated with the user-controlled character the Applicant is directed to the rejection of claim 1 above.

25. In response to Applicant's remarks that one or more of the genes may be adjusted by the a user and that the user and the document creator can be the same or different people run contrary to the Office Action's assertions under Official Notice the Office does not agree. Said language discloses that one or more of the genes may or may not be adjusted by a user and that the user and the document creator could be or could not be the same or different people. This is not considered to run contrary to the Office Notice.

26. In response to Applicant's remarks that Bickmore et al. is only directed to a 2-D environment, while the respective claims are directed to a 3D environment it is noted that Ventrella et al. teaches a 3D environment and that Ventrella et al. in combination with Bickmore et al. are considered to read on the respective claim limitations. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

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USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

27. Applicant's remarks have been fully considered but are not deemed persuasive.

Conclusion

28. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter-Anthony Pappas whose telephone number is 571-272-7646. The examiner can normally be reached on M-F 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on 571-272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Peter-Anthony Pappas
Examiner
Art Unit 2628

PP


ULKA CHAUHAN
SUPERVISORY PATENT EXAMINER